

EPA Region 5 Records Ctr.



247933

SITE ASSESSMENT  
for  
CUNEO PROPERTY

CHICAGO, COOK COUNTY, ILLINOIS  
TDD#: T05-9408-013  
PAN#: EIL0848SAA



**ecology and environment, inc.**

International Specialists in the Environment



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SEPTEMBER 30, 1994

Prepared By:	<u>Ronald W. Buggy</u>	Date:	<u>9/30/94</u>
Reviewed By:	<u>William Z. [Signature]</u>	Date:	<u>9/30/94</u>
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## 1.0 INTRODUCTION

On August 24, 1994, the Ecology and Environment, Inc. (E & E) Technical Assistance Team (TAT) was tasked by the United States Environmental Protection Agency (U.S. EPA) under Technical Direction Document (TDD) # T05-9408-013 to compile background information, perform a site walkthrough, and collect drum samples of potentially hazardous material found on site at the Cuneo Property Buildings, located at 2201 - 2300 South Grove Avenue, off of Cermak Avenue, in Chicago, Cook County, Illinois (see Figure 1 - Site Location Map).

## 2.0 SITE HISTORY

The site is comprised of two buildings. Building-1 was a seven story, H-shaped structure situated along the east bank of the south branch of the Chicago River. Building-1 encompasses over 400,000 square feet of total floor space. Building-2 was a six story triangular structure with a full basement. This building has over 340,000 square feet of floor space and is located to the south of Cermak Road (see Figure 2 - Site Features Map).

In 1870, a portion of the property adjacent to the Chicago River, where Building-1 is presently located, was a wholesale grocery facility occupied by the W.M. Hoy Company until 1921. The south portion of the Building-1 property was at one time occupied by Western Stone Company from 1889 to 1923.

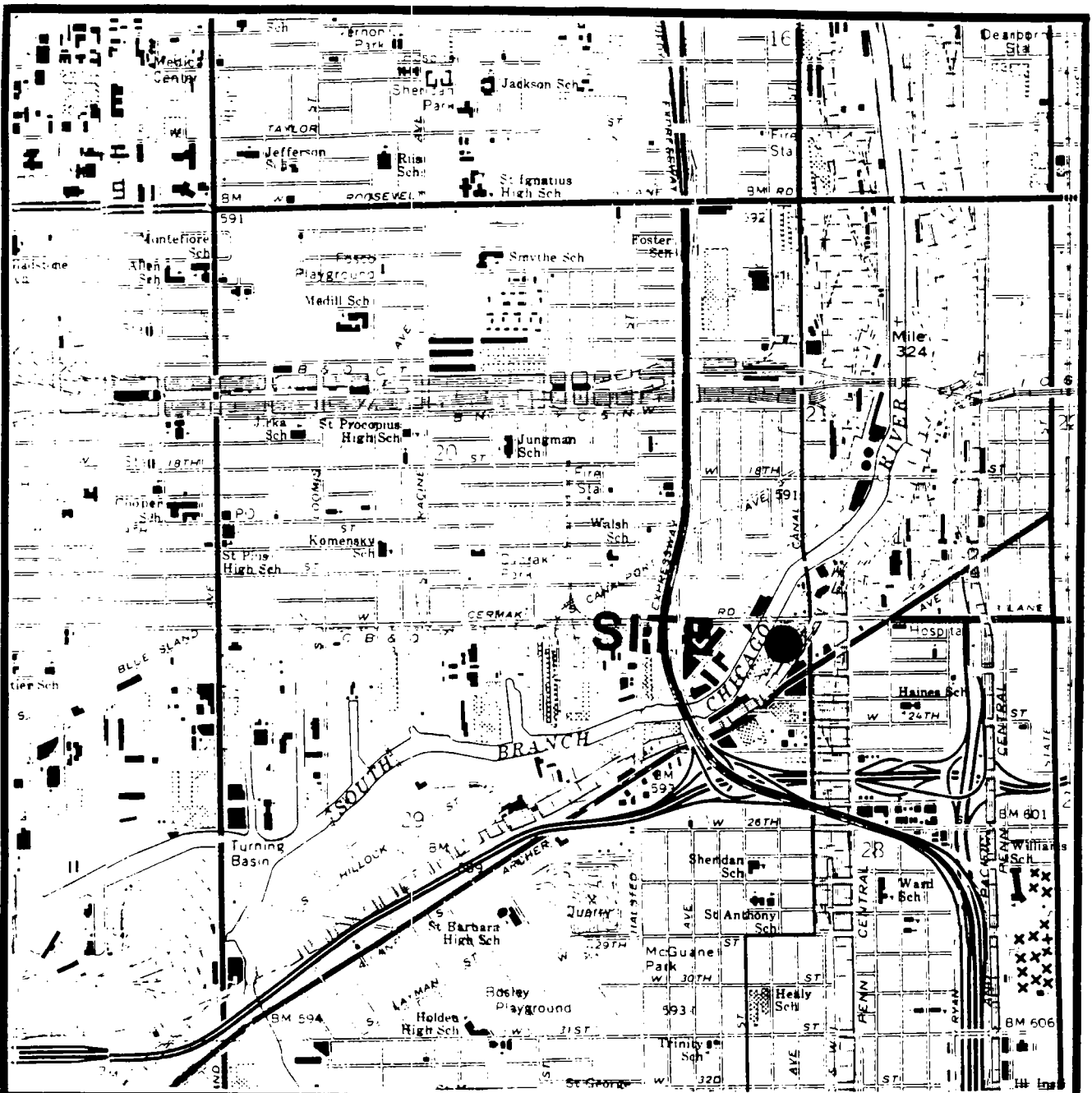
In 1922, Building-1 was constructed and an extension was built between the Cuneo Press Company and the Hoy Co. building. Cuneo purchased the property south of Building-1 from Western Stone Company and used the property as a parking lot for its employees.

In 1925, Cuneo purchased residential property east of Building-1 and developed Building-2. Building-2 is located directly west of the Illinois Central and Gulf Railroad.

In 1956, the property being used as a parking lot was developed into a metal print shop. Nine underground storage tanks (USTs) were installed and utilized by the print shop.

In December of 1977, Cuneo Property was purchased by Cergrove Realty under a Quit Claim Deed. The property was leased by Modern Copying Company as a printing facility. The addition connecting Building-1 and what is now Premium Plastics, formerly the Hoy Co. building, was demolished and removed.

In the 1980's, the Cuneo Property buildings were abandoned. In 1989, the metal shop building was demolished and three of the USTs were removed. Three other USTs were used by Sloan



Chicago

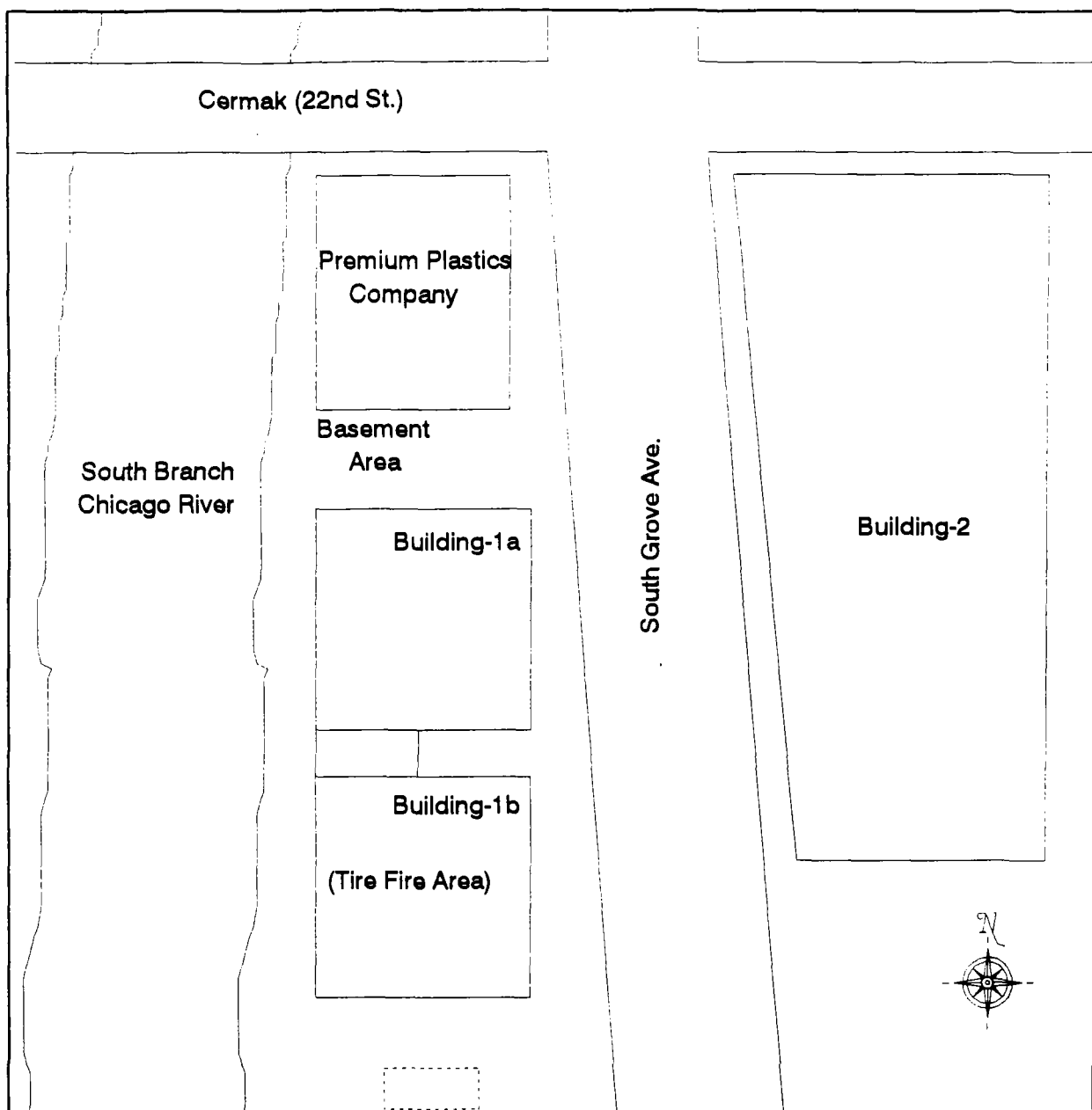




ecology and environment, inc.  
Technical Assistance Team  
Region V

111 W. Jackson Blvd., Chicago, Illinois 60604



TITLE <b>Site Location Map</b>		FIGURE # <b>1</b>
SITE <b>Cuneo Property</b>		SCALE <b>24,000 : 1</b>
CITY <b>Chicago</b>	STATE <b>Illinois</b>	PAN <b>EIL0848SAA</b>
SOURCE <b>Topographic Map</b>		DATE <b></b>
		REVISED <b></b>



<p> - UST area</p> <p><b>Building-1a</b> 50 drums of flammable liq. were found on the 4th fl. &amp; several drums were located in the basement.</p> <p><b>Building-1b</b> Tire fire occurred throughout the building in 1989. ~ 6 drums were on the 2nd fl.</p> <p><b>Building-2</b> Several drums were located on the 2nd fl &amp; Basement</p>	 <p><b>ecology and environment, Inc.</b> <b>Technical Assistance Team</b> <b>Region V</b></p> <p>111 W. Jackson Blvd., Chicago, Illinois 60604</p>	
	TITLE	FIGURE #
	SITE	SCALE
	CITY	PAN
	SOURCE	DATE
	REVISED	

Metals. Sloan Metals was located south of the Cuneo Property.

In 1989, a tire fire occurred in the south section of the H-shape Building-1. Presently all the windows of both of the buildings have been removed and damage from the fire prompted several floors to collapse on those below. The buildings are abandoned but are occupied by local homeless persons.

In March of 1994, a Phase I and Phase II Environmental Site Assessment was performed by Environmental Protection Industries (EPI), retained by the City of Chicago. The site assessments indicated that over 300 drums existed, uncontrolled on-site. The City of Chicago requested assistance from the state who referred the site to the U.S. EPA.

### 3.0 SITE ACTIVITIES

At 0930 hours on August 29, 1994, On-Scene Coordinator (OSC) Fred Bartman and TAT members Ron Bugg and Brad Stimple met with Chicago environmental representatives to perform a site walkthrough and to collect waste samples from each building.

During the reconnaissance of Building-1 and Building-2, the TAT recorded organic vapor readings using a photoionization detector (PID) to detect the presence of chlorinated and non-chlorinated solvents suspected to be on-site. During the walkthrough of Building-1, drums were located throughout the basement and on the fourth floor. Most of the drums found on-site were numbered from the earlier site assessments and many were found to be open and exposed to the surrounding atmosphere. Markings on the drums indicated that much of the drummed material was considered flammable liquid and designated as industrial solvents. Other drums were labelled as being methanol and trichloroethane. PID readings of the drums confirmed the presence of elevated organic vapors.

At 1030 hours, the OSC and TAT members began to perform a walkthrough of Building-2. During the walkthrough, several drums were observed throughout the basement, but TAT members were unable to access due to severe flooding. A drum labelled "corrosive" was observed on the fourth floor.

After the reconnaissance of both buildings was complete, the TAT prepared to collect drum samples from the fourth floor of Building-1 and the fourth floor of Building-2.

At 1105 hours, TAT members, in level B personal protection, collected four drum samples (D-1 through D-4) from the fourth floor of Building-1. The samples were collected from drums labeled as "methanol", "dielectric solvent", "multipurpose polymer solution", and "trichloroethane".

At 1148 hours, TAT collected a drum sample from the fourth floor of Building-2. The sample was collected from a drum labeled as an "alkaline corrosive" material.

TAT members performed a brief hazard characterization (HAZCAT) of the samples collected. Samples collected from building-1 were categorized as flammable liquids with high level organic vapor readings. The sample collected from Building-2 had recorded a pH of 12 s.u..

At 1300 hours, TAT members prepared the samples for delivery to a laboratory for chemical analysis under TDD # T05-9408-810. At 1600 hours, TAT member Bugg was notified that the samples were to be hand delivered to NET Laboratory in Bartlett, Illinois for analysis for volatile and semivolatile organic compounds, alcohols, and flashpoint, for samples collected from Building-1, and pH for the drum sample collected from Building-2.

The location of the five remaining USTs were not determined during the site assessment but are assumed to be on-site.

#### 4.0 ANALYTICAL RESULTS

The analytical results for samples collected on August 29, 1994, indicated high levels of toluene, xylene, and methanol in samples D-1 through D-4 and trichloroethane was detected in sample D-4. U.S. EPA SW846 method 8270 for semivolatiles, method 8240 for volatiles, method 8015 for alcohols, and method 1010 for flashpoint were utilized by the laboratory to perform the chemical analysis. The flashpoints of the drum samples collected from Building-1 were all below 140°F. Sample D-5 was analyzed for pH and was below 12.5 (see Table 1 for sample results).

#### 5.0 DISCUSSION OF POTENTIAL THREATS

Conditions at the Cuneo Property site that may warrant a removal action, as set forth in paragraph (b) (2) of Section 300.415 of the National Contingency Plan (NCP), include:

**Actual or potential exposure to nearby populations, animals, or the food chain from hazardous substances or pollutants or contaminants;**

The abandoned buildings on-site are presently occupied by homeless persons as shelter. Several witnesses have mentioned that a few of the vagrants had accessed several of the drums and have used the solvents for recreational inhalation purposes or have used the liquid as a source of fuel for lighting fires. Most of the drums on the fourth floor of Building-1 were labeled as flammable liquids and

were in poor condition, many open to the surrounding atmosphere.

**Hazardous substances or pollutants or contaminants in drums, barrels, tanks or other bulk storage containers, that may pose a threat of release;**

All of the drums sampled from the fourth floor of Building-1 were similar to the drums located in the basement. The drum samples designated as D-1 through D-4, had flashpoints below 140°F and contained approximately 50% toluene. D-4 contained approximately 25% trichloroethane. Due to the open and uncontrolled disposition of the drums, a potential for release was very imminent. Also, the Chicago River is located immediately adjacent to the open basement of Building-1. Five UST's are also suspected to be located on-site and may contain similar materials.

**Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released;**

Due to the uncontrolled nature of the abandoned drums, continuous freeze/thaw cycles could pose a threat of release as the drums continue to deteriorate. Basement flooding, as observed in both buildings, could also pose a vehicle for contaminant migration from drums located in these areas.

**Threat of fire or explosion;**

Most of the drums were labeled as flammable liquids. The analytical results indicated high levels of toluene and xylene. The flashpoints of the drums samples ranged from 71°F to 82°F. These materials are considered hazardous wastes due to characteristics of ignitibility as specified by 40 CFR Part 261.21.

## **6.0 REMOVAL ACTION**

Due to threats described above regarding the uncontrolled nature of hazardous wastes abandoned on-site, a time-critical removal action is warranted at the Cuneo Property site. The removal action would require disposal of the contents of approximately 200 drums and five USTs with a total volume of approximately 12,000 gallons. Contents have been confirmed to be that of flammable liquids, corrosive liquids, and waste oils, a 1-cubic yard box of hazardous solid waste, and empty 55-gallon drums. The following subsections present major activities associated with a two-phase removal action to be performed at the Cuneo Property site.

## 6.1 REMOVAL ACTION - PHASE I

Phase I removal actions would begin with the mobilization of the Emergency Response Cleanup Services (ERCS) contractor to the site and the development and implementation of a site health and safety plan. Subsequent to these initial actions, the ERCS contractor would consolidate all the drums from both buildings and stage in one area. Prior to disposal activities, ERCS will secure and fence the staged area. All drums that are in poor condition will be overpacked in 85-gallon salvage drums. After all of the drums have been sampled, HAZCAT and compatibility testing would be performed on all samples to determine composites for disposal analysis. Based on available information, identification of the following waste streams is anticipated during the compatibility testing:

- flammable Liquids
- base/neutral solids and/or liquids
- chlorinated hydrocarbons
- corrosive liquids
- hazardous waste solids

Concurrent with the compatibility testing, ERCS would secure any of the contents of the deteriorated drums into 85 gallon overpack drums. Following compatibility testing, composite samples would be sent to U.S. EPA-approved disposal facilities for disposal acceptance.

## 6.2 REMOVAL ACTION - PHASE II

Phase II of the removal action would consist of transportation and disposal of the anticipated waste streams identified in section 6.1. For cost purposes, it was assumed that 7,500 gallons of liquid inside five USTs would be removed utilizing two 5000-gallon vacuum trucks and the liquid would be transported to a fuels blender for disposal at a cost of \$1.00 per gallon. The drums of flammable liquids will be transported to a fuels blender for disposal. The solid waste will be transported for landfill disposal.

## 7.0 COST ESTIMATE

The cost estimate prepared for the mitigation of threats at the Cuneo Property site addresses the removal of liquid and solid wastes. The costs associated with this removal include sample collection, compatibility testing, waste stream development, fencing of the drum staging area, bulking of the waste streams, and waste transportation and proper disposal. The removal action is estimated to require eight 12-hour days and cost approximately \$152,350.00. The cost estimate generated by the Removal Cost Management System (RCMS) and a list of assumptions are presented

in Appendix B.

The cost estimate was generated with RCMS using rates from the ERCS contractor Reidel Environmental Services. Estimated costs for treatment of hazardous liquids were obtained from Research Oil Company, Cleveland, Ohio. Estimates for landfill of contaminated debris, drums, and possibly soil surrounding the USTs area were obtained from Chemical Waste Management.

The proposed work plan includes the following tasks

1. Mobilization to site - 1 day
2. Staging, sampling, and compatibility testing of all wastes streams - 5 days
3. Bulking of waste and transportation of waste streams off-site - 3 days
4. Final demobilization - 1 day

Table 1  
 Analytical Results  
 Cuneo Property, Chicago, Illinois  
 Samples Collected: August 29, 1994  
 Units: mg/Kg (parts per million (ppm))  
 (except for pH)

Sample: Analytes:	D-1	D-2	D-3	D-4	D-5
Toluene	595,000	426,000	577,000	4,679	NA
Xylene	< 6,000	< 6,000	45,800	< 4,200	NA
Trichloro-ethane	< 6,000	< 6,000	< 6,000	257,000	NA
Methanol	29.7	53.1	2,350	143	NA
pH	NA	NA	NA	NA	11.96
Flashpoint	72°F	72°F	72°F	81°F	NA

VOA Analyzed at a 1,200,000 \* dilution

**A**

.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: CUNEO PROPERTY BUILDINGS SITE

PAGE 1 OF 3

U.S. EPA ID: UNKNOWN

TDD: T05-9408-013

PAN: EIL0848SAA

DATE: 9-29-94

TIME: 1000

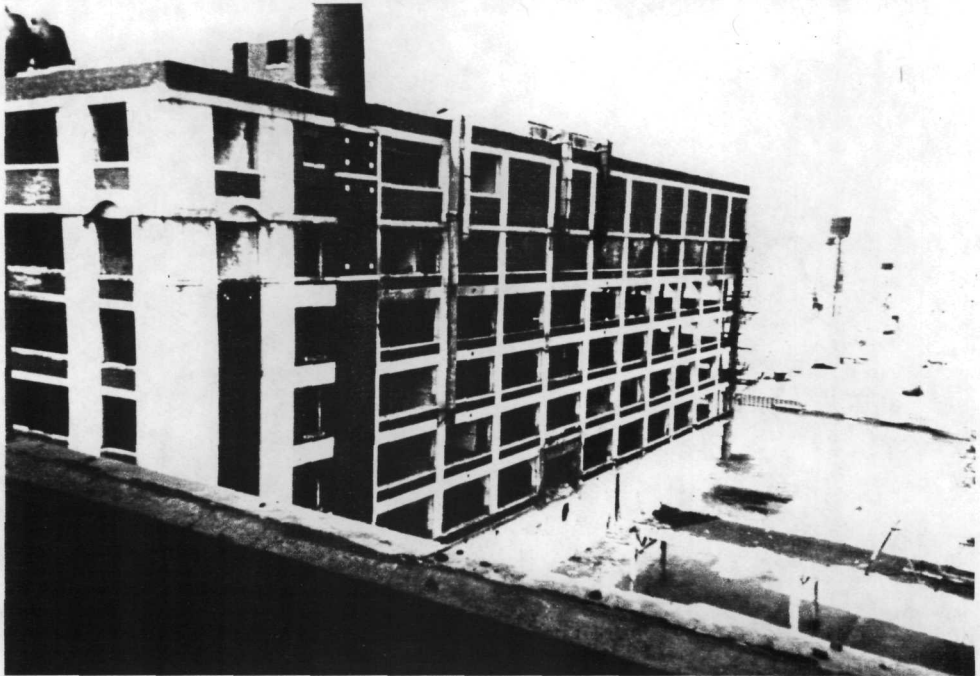
DIRECTION OF  
PHOTOGRAPH:  
WEST

WEATHER  
CONDITIONS:  
SUNNY, CLEAR

APPROX. 75F

PHOTOGRAPHED BY:  
R. BUGG

PHOTO ID:  
NA



DESCRIPTION: VIEW OF BUILDING-1.

DATE: 9-29-94

TIME: 1140

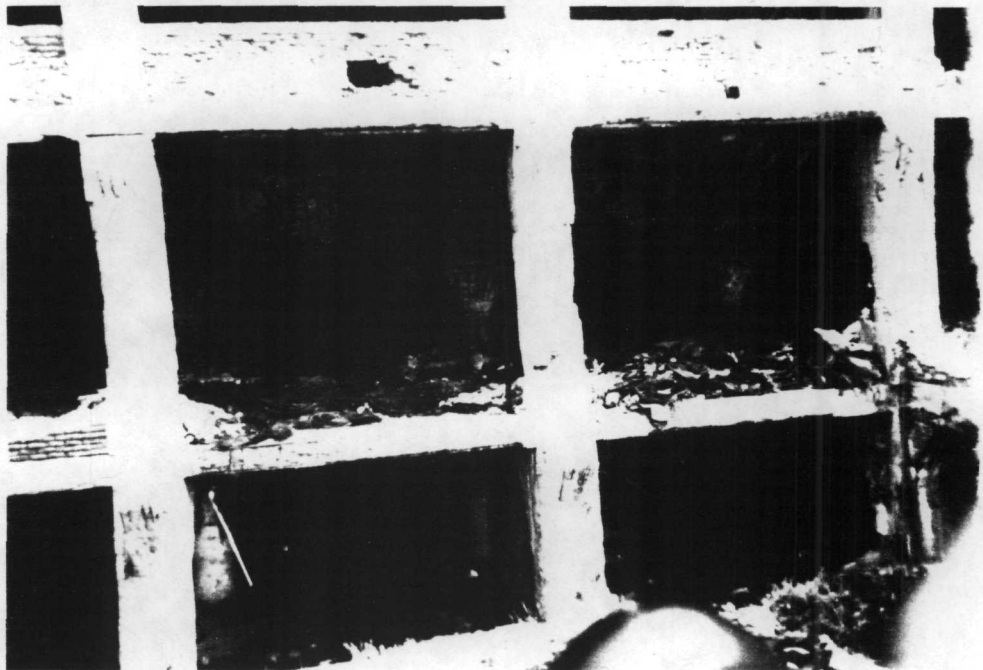
DIRECTION OF  
PHOTOGRAPH:  
NORTH

WEATHER  
CONDITIONS:  
SUNNY, CLEAR

APPROX. 75F

PHOTOGRAPHED BY:  
R. BUGG

PHOTO ID:  
NA



DESCRIPTION: COLLAPSING FLOOR INSIDE BUILDING-1.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: CUNEO PROPERTY BUILDINGS SITE

PAGE 2 OF 3

U.S. EPA ID: UNKNOWN

TDD: T05-9408-013

PAN: EIL0848SAA

DATE: 9-29-94

TIME: 1100

DIRECTION OF  
PHOTOGRAPH:  
SOUTH

WEATHER  
CONDITIONS:  
SUNNY, CLEAR

APPROX. 75F

PHOTOGRAPHED BY:  
R. BUGG

PHOTO ID:  
NA



DESCRIPTION: VIEW OF ABANDONED DRUMS LOCATED ON THE 4TH FLOOR OF  
BUILDING-1.

DATE: 9-29-94

TIME: 1100

DIRECTION OF  
PHOTOGRAPH:  
NORTHWEST

WEATHER  
CONDITIONS:  
SUNNY, CLEAR

APPROX. 75F

PHOTOGRAPHED BY:  
R. BUGG

PHOTO ID:  
NA



DESCRIPTION: CLOSE-UP OF A DRUM LABELLED AS "FLAMMABLE LIQUID",  
LOCATED ON THE 4TH FLOOR OF BUILDING-1.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: CUNEO PROPERTY BUILDINGS SITE

PAGE 3 OF 3

U.S. EPA ID: UNKNOWN

TDD: T05-9408-013

PAN: EIL0848SAA

DATE: 9-29-94

TIME: 1300

DIRECTION OF  
PHOTOGRAPH:  
NORTH

WEATHER  
CONDITIONS:  
SUNNY, CLEAR

APPROX. 75F

PHOTOGRAPHED BY:  
R. BUGG

PHOTO ID:  
NA



DESCRIPTION: LIQUID DRUM SAMPLE COLLECTED FROM YELLOW DRUM MARKED AS  
"DIELECTRIC SOLVENT". SAMPLE D2. LOCATED ON 4TH FLOOR OF BUILDING-1.

DATE: 9-29-94

TIME: 1310

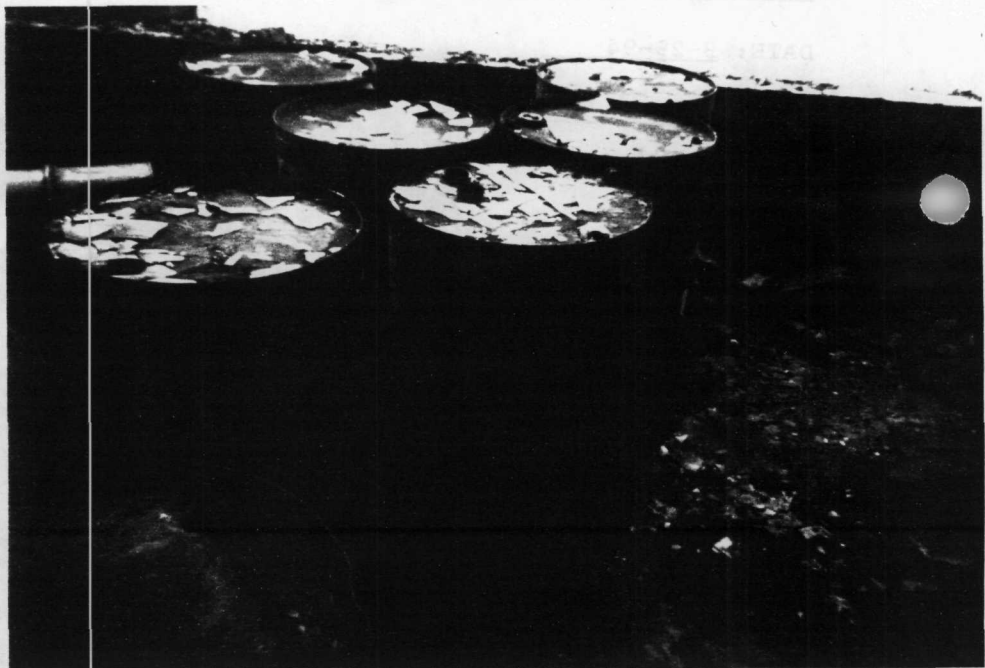
DIRECTION OF  
PHOTOGRAPH:  
NORTHEAST

WEATHER  
CONDITIONS:  
SUNNY, CLEAR

APPROX. 75F

PHOTOGRAPHED BY:  
R. BUGG

PHOTO ID:  
NA



DESCRIPTION: SAMPLE D4 COLLECTED FROM A DRUM MARKED AS "TRICHLOROETHANE",  
LOCATED ON THE 4TH FLOOR OF BUILDING-1.





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## M E M O R A N D U M

DATE: September 16, 1994

TO: Ron Bugg, Project Manager, E & E, Chicago, IL

FROM: Herbert B. Langer, TAT-Chemical Engineer, E & E, Detroit, MI *HL*

THRU: Sandra L. Basham, ATATL, E & E, Detroit, MI *SLB*

SUBJ: Organic Data Quality Assurance Review, Cuneo Properties Site, Chicago, Cook County, Illinois.

REF: Analytical TDD: T05-9408-810 Project TDD: T05-9408-013  
Analytical PAN: EIL0848AAA Project PAN: EIL0848SAA

The data quality assurance review for the four waste samples collected from the Cuneo Properties site in Chicago, Illinois, has been completed. Analysis for semi-volatile organic compounds (EPA method 8270) was performed by National Environmental Testing Laboratories, Bartlett, Illinois.

The samples were numbered D1 through D4, corresponding to laboratory identification numbers 274947 through 274950, respectively.

### Data Qualifications

#### I Holding Time: Acceptable

The samples were collected August 29, 1994, extracted August 30, 1994, and analyzed August 31, 1994. All activities were performed within the recommended holding times for the method and matrix.

#### II GC/MS Tuning: Acceptable

Decafluorotriphenylphosphine tuning compound was run within twelve hours of the sample analysis. The ion abundance criteria were met for the instrument used.

III Initial Calibration and Continuing Calibration: Acceptable

Initial calibration was performed on August 5, 1994. The percent relative standard deviations between response factors for the calibration standard concentrations were less than ten, as required. Continuing calibration was performed the day of analysis. The percent difference between initial and continuing calibration response factors was less than 15, as required.

IV Method Blank: Acceptable

A method blank was analyzed along with the samples. The target compound was not detected in the method blank above the instrument detection limit.

V Optional Quality Control Analyses:

A. Matrix Spike/Matrix Spike Duplicates (MS/MSD): Acceptable

A MS and MSD were prepared by the laboratory. The percent recovery of the spike compound and relative percent difference between MS and MSD results met the laboratory's quality control guidelines.

B. Surrogate Recoveries: Acceptable

The surrogate compound 3-pentanol was added to the daily standard and method blank. The percent recoveries of the surrogate compound were within the laboratory's quality control guidelines.

VI Compound Identification: Acceptable

The correct retention time window was used by the laboratory to identify the target compound. The retention time reported for the target compound was within 0.06 units of the daily standard, as required.

VII Compound Quantitation and Reported Detection Limits: Acceptable

Quantitation of the detected compound in the samples and reported detection limits have been correctly adjusted to reflect sample dilutions and concentrations.

VIII Overall Assessment of Data for Use:

The overall usefulness of the data is based on the criteria outlined in OSWER Directive 9360.4-01 (April 1990), Data Validation Procedures, Section 9.1, GC Analyses. Based upon the information provided, the data are acceptable for use.



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FROM: Herbert B. Langer, TAT-Chemical Engineer, E & E, Detroit, MI *HL*

THRU: Sandra L. Basham, ATATL, E & E, Detroit, MI *SLB*

SUBJ: Flash Point and pH Data Quality Assurance Review,  
Cuneo Properties Site, Chicago, Cook County, Illinois.

REF: Analytical TDD: T05-9408-810 Project TDD: T05-9408-013  
Analytical PAN: EIL0848AAA Project PAN: EIL0848SAA

The data quality assurance review for the five waste samples collected from the Cuneo Properties site in Chicago, Illinois, has been completed. Analyses for pH and flash point (EPA methods 9040 and 1010) were performed by National Environmental Testing Laboratories, Bartlett, Illinois.

Samples numbered D1 through D4 were analyzed for flash point by closed cup. Sample D5 was analyzed for pH. These sample numbers corresponded to laboratory identification numbers 274947 through 274951, respectively.

### Data Qualifications

#### I Holding Time: Acceptable

The samples were collected August 29, 1994. The pH analysis was performed August 29, 1994, and flash point analyses were performed September 1, 1994. The OSWER Directive 9360.4-01 does not include criteria regarding holding times for these methods.

#### II Calibration: Acceptable

The lab used a standard buffer with a pH of 7.02, to test the pH instrument calibration. The buffer analyzed at 6.99, which was acceptable. A check sample using p-xylene was used to test the flash point equipment. The check sample

III Initial and Continuing Calibration Verification: Acceptable

Initial calibration was performed August 29, 1994. All average response factors were greater than zero and percent relative standard deviations between response factors were less than thirty, as required.

Continuing calibration was performed on the day of analysis. All relative response factors were greater than 0.05, and the percent differences between initial and continuing calibration response factors, for detected compounds, were less than twenty-five, as required.

IV Method Blank: Acceptable

A method blank was prepared and analyzed with the samples. None of the target compounds were detected in the blank above the instrument detection limits.

V Optional Analysis, Surrogate Recovery: No Action

Six surrogates were added to each sample. The surrogate compounds were not detected by the instrument. The surrogate compound concentrations were diluted to below the instrument's detection limits.

VI Compound Identification: Acceptable

Bis (2-ethylhexyl) phthalate was the only target compound detected in the samples. The relative response times for the compound were within 0.06 units of the daily standard, as required.

VII Compound Quantitation and Reported Detection Limits: Acceptable

Quantitation of the detected compound in the samples and all reported detection limits, have been correctly adjusted to reflect sample dilutions and concentrations. The detected compound is from the phthalate family. These compounds are often found to be laboratory contaminants caused during the handling of the sample. While the concentrations may seem significant, if laboratory contamination occurred after sample dilution it would artificially elevate the contaminant concentration. If the compound is not expected as a site contaminant, the positive results for the compound should be considered suspect.

VIII Overall Assessment of Data for Use:

The overall usefulness of the data is based on the criteria outlined in OSWER Directive 9360.4-01 (April 1990), Data Validation Procedures, Section 4.0, BNAs by GC/MS Analysis. Based upon the information provided, the data are acceptable for use.



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THRU: Sandra L. Basham, ATATL, E & E, Detroit, MI *SLB*

SUBJ: Organic Data Quality Assurance Review, Cuneo Properties Site, Chicago, Cook County, Illinois.

REF: Analytical TDD: T05-9408-810 Project TDD: T05-9408-013  
Analytical PAN: EIL0848AAA Project PAN: EIL0848SAA

The data quality assurance review for the four waste samples collected from the Cuneo Properties site in Chicago, Illinois, has been completed. Analysis for volatile organic compounds (EPA method 8240) was performed by National Environmental Testing Laboratories, Bartlett, Illinois.

The samples were numbered D1 through D4, corresponding to laboratory identification numbers 274947 through 274950, respectively.

### Data Qualifications

#### I Holding Time: Acceptable

The samples were collected August 29, 1994, and analyzed August 31, 1994, within the recommended holding time for the method and matrix.

#### II GC/MS Tuning: Acceptable

Bromofluorobenzene tuning compound was run within twelve hours of the sample analysis. Ion abundance criteria were met for the instrument used.

#### III Initial and Continuing Calibration Verification: Acceptable

Initial calibration was performed August 29, 1994. All average response factors were greater than zero and percent relative standard deviations between response factors were

less than thirty, as required.

Continuing calibration was performed on the day of analysis. All relative response factors were greater than 0.05, and the percent differences between initial and continuing calibration response factors, for detected compounds, were less than twenty-five, as required.

IV Method Blank: Acceptable

A method blank was prepared and analyzed with the samples. None of the target compounds were detected in the blank above the instrument detection limits.

V Optional Quality Control Analyses:

A. Matrix Spike/Matrix Spike Duplicate (MS/MSD): Acceptable

A water MS and MSD were prepared by the laboratory. The percent recovery of the spike compounds and relative percent difference between MS and MSD results met the laboratory's quality control guidelines.

B. Surrogate Recovery: Acceptable

A total of three surrogate compounds were added to each sample, the daily standard, method blank, MS, and MSD. The percent recoveries of the surrogate compounds were within the laboratory's quality control guidelines.

VI Compound Identification: Acceptable

Relative response times for detected compounds were within 0.06 units of the daily standards, as required. All ions present in the samples were calibrated for using the daily standard.

VII Compound Quantitation and Reported Detection Limits: Acceptable

Quantitation of detected compounds in the samples and reported detection limits have been correctly adjusted to reflect sample dilutions and concentrations.

VIII Overall Assessment of Data for Use:

The overall usefulness of the data is based on the criteria outlined in OSWER Directive 9360.4-01 (April 1990), Data Validation Procedures, Section 5.0, VOAs by GC/MS Analysis. Based upon the information provided, the data are acceptable for use.



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Analytical PAN: EIL0848AAA Project PAN: EIL0848SAA

The data quality assurance review for the four waste samples collected from the Cuneo Properties site in Chicago, Illinois, has been completed. Analysis for methanol (EPA method 8015) was contracted to National Environmental Testing Laboratories, Bartlett, Illinois, and was performed by their Dallas, Texas, laboratories.

The samples were numbered D1 through D4, corresponding to laboratory identification numbers 274947 through 274950, respectively.

### Data Qualifications

#### I Sample Holding Time: Acceptable

The samples were collected August 29, 1994, and analyzed August 31, 1994, within the recommended holding time for the method and matrix.

#### II Instrument Performance: Acceptable

Daily standard chromatograms show adequate peak resolution. Retention time windows are reported and the standard peaks fall within them.

flashed at an acceptable 80 degrees, which is one degree less than the correct temperature for this compound.

### III Overall Assessment of Data for Use:

There are no criteria specified in the U.S. EPA OSWER Directive 9360.4-01 for the evaluation of pH and flash point analyses. Based on the calibration data and review of the analytical method, the data is considered acceptable for use as reported.



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## ANALYTICAL REPORT

Mr. Herb Langer  
ECOLOGY & ENVIRONMENT, INC  
12251 Universal  
Taylor, MI 48180

09/02/1994

Sample No. : 274947

NET Job No.: 94.06756

Sample Description: D-1 Methanol; Grab  
T05-9408

Date Taken: 08/29/1994  
Time Taken: 11:05

Date Received: 08/29/1994  
Time Received: 17:45

Analyte	Result	Flag	Units	Date Analyzed	Analyst Initials	Analytical Method
Flashpoint	72		Degree F	09/01/1994	knj	1010 (1)
ALCOHOL COMPOUNDS NON-AQUEOUS						
Methanol	29.7		ug/g	08/31/1994	mjs	8015 (1)
PREP, BN Nonaqueous	COMPLETE			08/30/1994	mjs	3500 (1)
PREP, Acid Ext. Nonaqueous	COMPLETE			08/30/1994	mjs	3500 (1)
ACID CMPDS - 8270 NONAQUEOUS						
4-Chloro-3-methylphenol	<100		mg/Kg	08/31/1994	rla	8270 (1)
2-Chlorophenol	<100		mg/Kg	08/31/1994	rla	8270 (1)
2,4-Dichlorophenol	<100		mg/Kg	08/31/1994	rla	8270 (1)
2,4-Dimethylphenol	<100		mg/Kg	08/31/1994	rla	8270 (1)
2,4-Dinitrophenol	<500		mg/Kg	08/31/1994	rla	8270 (1)
2-Methyl-4,6-dinitrophenol	<500		mg/Kg	08/31/1994	rla	8270 (1)
2-Nitrophenol	<100		mg/Kg	08/31/1994	rla	8270 (1)
4-Nitrophenol	<500		mg/Kg	08/31/1994	rla	8270 (1)
Pentachlorophenol	<500		mg/Kg	08/31/1994	rla	8270 (1)
Phenol	<100		mg/Kg	08/31/1994	rla	8270 (1)
2,4,6-Trichlorophenol	<100		mg/Kg	08/31/1994	rla	8270 (1)

BNAs (8270) were analyzed at a 300x dilution.





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## ANALYTICAL REPORT

Mr. Herb Langer  
ECOLOGY & ENVIRONMENT, INC  
12251 Universal  
Taylor, MI 48180

09/02/1994

Sample No. : 274947

NET Job No.: 94.06756

Sample Description: D-1 Methanol; Grab  
T05-9408

Date Taken: 08/29/1994  
Time Taken: 11:05

Date Received: 08/29/1994  
Time Received: 17:45

Analyte	Result	Flag	Units	Date Analyzed	Analyst Initials	Analytical Method
BASE/NEUTRALS-8270 NONAQUEOUS						
Acenaphthene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Acenaphthylene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Anthracene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Benzidine	<500		mg/Kg	08/31/1994	rla	8270 (1)
Benzo(a)anthracene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Benzo(b)fluoranthene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Benzo(k)fluoranthene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Benzo(g,h,i)perylene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Benzo(a)pyrene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Benzyl butyl phthalate	<100		mg/Kg	08/31/1994	rla	8270 (1)
Bis(2-chloroethoxy)methane	<100		mg/Kg	08/31/1994	rla	8270 (1)
Bis(2-chloroethyl)ether	<100		mg/Kg	08/31/1994	rla	8270 (1)
Bis(2-chloroisopropyl)ether	<100		mg/Kg	08/31/1994	rla	8270 (1)
Bis(2-ethylhexyl)phthalate	<100		mg/Kg	08/31/1994	rla	8270 (1)
4-Bromophenyl phenyl ether	<100		mg/Kg	08/31/1994	rla	8270 (1)
2-Chloronaphthalene	<100		mg/Kg	08/31/1994	rla	8270 (1)
4-Chlorophenyl phenyl ether	<100		mg/Kg	08/31/1994	rla	8270 (1)
Chrysene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Dibenzo(a,h)anthracene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Di-n-butyl phthalate	<100		mg/Kg	08/31/1994	rla	8270 (1)
1,2-Dichlorobenzene	<100		mg/Kg	08/31/1994	rla	8270 (1)
1,3-Dichlorobenzene	<100		mg/Kg	08/31/1994	rla	8270 (1)
1,4-Dichlorobenzene	<100		mg/Kg	08/31/1994	rla	8270 (1)
3,3'-Dichlorobenzidine	<200		mg/Kg	08/31/1994	rla	8270 (1)
Diethyl phthalate	<100		mg/Kg	08/31/1994	rla	8270 (1)
Dimethyl phthalate	<100		mg/Kg	08/31/1994	rla	8270 (1)

BNAs (8270) were analyzed at a 300x dilution.





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## ANALYTICAL REPORT

Mr. Herb Langer  
ECOLOGY & ENVIRONMENT, INC  
12251 Universal  
Taylor, MI 48180

09/02/1994

Sample No. : 274947

NET Job No.: 94.06756

Sample Description: D-1 Methanol; Grab  
T05-9408

Date Taken: 08/29/1994  
Time Taken: 11:05

Date Received: 08/29/1994  
Time Received: 17:45

Analyte	Result	Flag	Units	Date Analyzed	Analyst Initials	Analytical Method
2,4-Dinitrotoluene	<100		mg/Kg	08/31/1994	rla	8270 (1)
2,6-Dinitrotoluene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Di-n-octyl phthalate	<100		mg/Kg	08/31/1994	rla	8270 (1)
Fluoranthene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Fluorene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Hexachlorobenzene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Hexachlorobutadiene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Hexachlorocyclopentadiene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Hexachloroethane	<100		mg/Kg	08/31/1994	rla	8270 (1)
Indeno(1,2,3-cd)pyrene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Isophorone	<100		mg/Kg	08/31/1994	rla	8270 (1)
Naphthalene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Nitrobenzene	<100		mg/Kg	08/31/1994	rla	8270 (1)
N-Nitrosodimethylamine	<100		mg/Kg	08/31/1994	rla	8270 (1)
N-Nitrosodi-n-propylamine	<100		mg/Kg	08/31/1994	rla	8270 (1)
N-Nitrosodiphenylamine	<100		mg/Kg	08/31/1994	rla	8270 (1)
Phenanthrene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Pyrene	<100		mg/Kg	08/31/1994	rla	8270 (1)
1,2,4-Trichlorobenzene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Surr: Phenol-d6	Diluted out		%	08/31/1994	rla	8270 (1)
Surr: 2-Fluorophenol	Diluted out		%	08/31/1994	rla	8270 (1)
Surr: Nitrobenzene-d5	Diluted out		%	08/31/1994	rla	8270 (1)
Surr: 2-Fluorobiphenyl	Diluted out		%	08/31/1994	rla	8270 (1)
Surr: Terphenyl-d14	Diluted out		%	08/31/1994	rla	8270 (1)
Surr: 2,4,6-Tribromophenol	Diluted out		%	08/31/1994	rla	8270 (1)

BNAs (8270) were analyzed at a 300x dilution.





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## ANALYTICAL REPORT

Mr. Herb Langer  
ECOLOGY & ENVIRONMENT, INC  
12251 Universal  
Taylor, MI 48180

09/02/1994

Sample No. : 274947

NET Job No.: 94.06756

Sample Description: D-1 Methanol; Grab  
T05-9408

Date Taken: 08/29/1994  
Time Taken: 11:05

Date Received: 08/29/1994  
Time Received: 17:45

Analyte	Result	Flag	Units	Date Analyzed	Analyst Initials	Analytical Method
VOLATILES - 8240 NONAQUEOUS						
Acrolein	<120,000		mg/Kg	08/31/1994	adl	8240 (1)
Acrylonitrile	<120,000		mg/Kg	08/31/1994	adl	8240 (1)
Benzene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Bromodichloromethane	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Bromoform	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Bromomethane	<12,000		mg/Kg	08/31/1994	adl	8240 (1)
Carbon tetrachloride	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Chlorobenzene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Chloroethane	<12,000		mg/Kg	08/31/1994	adl	8240 (1)
2-Chloroethylvinyl ether	<12,000		mg/Kg	08/31/1994	adl	8240 (1)
Chloroform	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Chloromethane	<12,000		mg/Kg	08/31/1994	adl	8240 (1)
Dibromochloromethane	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
1,2-Dichlorobenzene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
1,3-Dichlorobenzene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
1,4-Dichlorobenzene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
1,1-Dichloroethane	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
1,2-Dichloroethane	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
1,1-Dichloroethene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
trans-1,2-Dichloroethene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
cis-1,2-Dichloroethene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
1,2-Dichloropropane	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
cis-1,3-Dichloropropene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
trans-1,3-Dichloropropene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Ethyl benzene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Methylene chloride	<6,000		mg/Kg	08/31/1994	adl	8240 (1)

VOAs (8240) were analyzed at a 1,200,000x dilution.





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## ANALYTICAL REPORT

Mr. Herb Langer  
ECOLOGY & ENVIRONMENT, INC  
12251 Universal  
Taylor, MI 48180

09/02/1994

Sample No. : 274947

NET Job No.: 94.06756

Sample Description: D-1 Methanol; Grab  
T05-9408

Date Taken: 08/29/1994  
Time Taken: 11:05

Date Received: 08/29/1994  
Time Received: 17:45

Analyte	Result	Flag	Units	Date Analyzed	Analyst Initials	Analytical Method
1,1,2,2-Tetrachloroethane	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Tetrachloroethene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Toluene	595,000		mg/Kg	08/31/1994	adl	8240 (1)
1,1,1-Trichloroethane	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
1,1,2-Trichloroethane	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Trichloroethene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Trichlorofluoromethane	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Vinyl chloride	<12,000		mg/Kg	08/31/1994	adl	8240 (1)
Xylenes, Total	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Surr: 1,2-Dichloroethane-d4	100	(70-121)	%	08/31/1994	adl	8240 (1)
Surr: Toluene-d8	95	(81-117)	%	08/31/1994	adl	8240 (1)
Surr: Bromofluorobenzene	100	(74-121)	%	08/31/1994	adl	8240 (1)

VOAs (8240) were analyzed at a 1,200,000x dilution.

(Toluene was analyzed at a 3,000,000x dilution)





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## ANALYTICAL REPORT

Mr. Herb Langer  
ECOLOGY & ENVIRONMENT, INC  
12251 Universal  
Taylor, MI 48180

09/02/1994

Sample No. : 274948

NET Job No.: 94.06756

Sample Description: D-2 Dielectric; Grab  
T05-9408

Date Taken: 08/29/1994  
Time Taken: 11:10

Date Received: 08/29/1994  
Time Received: 17:45

Analyte	Result	Flag	Units	Date Analyzed	Analyst Initials	Analytical Method
Flashpoint	72		Degree F	09/01/1994	knj	1010 (1)
ALCOHOL COMPOUNDS NON-AQUEOUS						
Methanol	53.1		ug/g	08/31/1994	mjs	8015 (1)
PREP, BN Nonaqueous	COMPLETE			08/30/1994	mjs	3500 (1)
PREP, Acid Ext. Nonaqueous	COMPLETE			08/30/1994	mjs	3500 (1)
ACID CMPDS - 8270 NONAQUEOUS						
4-Chloro-3-methylphenol	<100		mg/Kg	08/31/1994	rla	8270 (1)
2-Chlorophenol	<100		mg/Kg	08/31/1994	rla	8270 (1)
2,4-Dichlorophenol	<100		mg/Kg	08/31/1994	rla	8270 (1)
2,4-Dimethylphenol	<100		mg/Kg	08/31/1994	rla	8270 (1)
2,4-Dinitrophenol	<500		mg/Kg	08/31/1994	rla	8270 (1)
2-Methyl-4,6-dinitrophenol	<500		mg/Kg	08/31/1994	rla	8270 (1)
2-Nitrophenol	<100		mg/Kg	08/31/1994	rla	8270 (1)
4-Nitrophenol	<500		mg/Kg	08/31/1994	rla	8270 (1)
Pentachlorophenol	<500		mg/Kg	08/31/1994	rla	8270 (1)
Phenol	<100		mg/Kg	08/31/1994	rla	8270 (1)
2,4,6-Trichlorophenol	<100		mg/Kg	08/31/1994	rla	8270 (1)

BNAs (8270) were analyzed at a 300x dilution.





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## ANALYTICAL REPORT

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ECOLOGY & ENVIRONMENT, INC  
12251 Universal  
Taylor, MI 48180

09/02/1994

Sample No. : 274948

NET Job No.: 94.06756

Sample Description: D-2 Dielectric; Grab  
T05-9408

Date Taken: 08/29/1994  
Time Taken: 11:10

Date Received: 08/29/1994  
Time Received: 17:45

Analyte	Result	Flag	Units	Date Analyzed	Analyst Initials	Analytical Method
BASE/NEUTRALS-8270 NONAQUEOUS						
Acenaphthene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Acenaphthylene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Anthracene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Benzidine	<500		mg/Kg	08/31/1994	rla	8270 (1)
Benzo(a)anthracene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Benzo(b)fluoranthene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Benzo(k)fluoranthene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Benzo(g,h,i)perylene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Benzo(a)pyrene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Benzyl butyl phthalate	<100		mg/Kg	08/31/1994	rla	8270 (1)
Bis(2-chloroethoxy)methane	<100		mg/Kg	08/31/1994	rla	8270 (1)
Bis(2-chloroethyl)ether	<100		mg/Kg	08/31/1994	rla	8270 (1)
Bis(2-chloroisopropyl)ether	<100		mg/Kg	08/31/1994	rla	8270 (1)
Bis(2-ethylhexyl)phthalate	630		mg/Kg	08/31/1994	rla	8270 (1)
4-Bromophenyl phenyl ether	<100		mg/Kg	08/31/1994	rla	8270 (1)
2-Chloronaphthalene	<100		mg/Kg	08/31/1994	rla	8270 (1)
4-Chlorophenyl phenyl ether	<100		mg/Kg	08/31/1994	rla	8270 (1)
Chrysene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Dibenzo(a,h)anthracene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Di-n-butyl phthalate	<100		mg/Kg	08/31/1994	rla	8270 (1)
1,2-Dichlorobenzene	<100		mg/Kg	08/31/1994	rla	8270 (1)
1,3-Dichlorobenzene	<100		mg/Kg	08/31/1994	rla	8270 (1)
1,4-Dichlorobenzene	<100		mg/Kg	08/31/1994	rla	8270 (1)
3,3'-Dichlorobenzidine	<200		mg/Kg	08/31/1994	rla	8270 (1)
Diethyl phthalate	<100		mg/Kg	08/31/1994	rla	8270 (1)
Dimethyl phthalate	<100		mg/Kg	08/31/1994	rla	8270 (1)

BNAs (8270) were analyzed at a 300x dilution.





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## ANALYTICAL REPORT

Mr. Herb Langer  
ECOLOGY & ENVIRONMENT, INC  
12251 Universal  
Taylor, MI 48180

09/02/1994

Sample No. : 274948

NET Job No.: 94.06756

Sample Description: D-2 Dielectric; Grab  
T05-9408

Date Taken: 08/29/1994  
Time Taken: 11:10

Date Received: 08/29/1994  
Time Received: 17:45

Analyte	Result	Flag	Units	Date Analyzed	Analyst Initials	Analytical Method
2,4-Dinitrotoluene	<100		mg/Kg	08/31/1994	rla	8270 (1)
2,6-Dinitrotoluene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Di-n-octyl phthalate	<100		mg/Kg	08/31/1994	rla	8270 (1)
Fluoranthene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Fluorene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Hexachlorobenzene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Hexachlorobutadiene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Hexachlorocyclopentadiene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Hexachloroethane	<100		mg/Kg	08/31/1994	rla	8270 (1)
Indeno(1,2,3-cd)pyrene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Isophorone	<100		mg/Kg	08/31/1994	rla	8270 (1)
Naphthalene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Nitrobenzene	<100		mg/Kg	08/31/1994	rla	8270 (1)
N-Nitrosodimethylamine	<100		mg/Kg	08/31/1994	rla	8270 (1)
N-Nitrosodi-n-propylamine	<100		mg/Kg	08/31/1994	rla	8270 (1)
N-Nitrosodiphenylamine	<100		mg/Kg	08/31/1994	rla	8270 (1)
Phenanthrene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Pyrene	<100		mg/Kg	08/31/1994	rla	8270 (1)
1,2,4-Trichlorobenzene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Surr: Phenol-d6	Diluted out		%	08/31/1994	rla	8270 (1)
Surr: 2-Fluorophenol	Diluted out		%	08/31/1994	rla	8270 (1)
Surr: Nitrobenzene-d5	Diluted out		%	08/31/1994	rla	8270 (1)
Surr: 2-Fluorobiphenyl	Diluted out		%	08/31/1994	rla	8270 (1)
Surr: Terphenyl-d14	Diluted out		%	08/31/1994	rla	8270 (1)
Surr: 2,4,6-Tribromophenol	Diluted out		%	08/31/1994	rla	8270 (1)

BNAs (8270) analyzed at a 300x dilution.





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## ANALYTICAL REPORT

Mr. Herb Langer  
ECOLOGY & ENVIRONMENT, INC  
12251 Universal  
Taylor, MI 48180

09/02/1994

Sample No. : 274948

NET Job No.: 94.06756

Sample Description: D-2 Dielectric; Grab  
T05-9408

Date Taken: 08/29/1994  
Time Taken: 11:10

Date Received: 08/29/1994  
Time Received: 17:45

Analyte	Result	Flag	Units	Date Analyzed	Analyst Initials	Analytical Method
VOLATILES - 8240 NONAQUEOUS						
Acrolein	<120,000		mg/Kg	08/31/1994	adl	8240 (1)
Acrylonitrile	<120,000		mg/Kg	08/31/1994	adl	8240 (1)
Benzene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Bromodichloromethane	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Bromoform	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Bromomethane	<12,000		mg/Kg	08/31/1994	adl	8240 (1)
Carbon tetrachloride	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Chlorobenzene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Chloroethane	<12,000		mg/Kg	08/31/1994	adl	8240 (1)
2-Chloroethylvinyl ether	<12,000		mg/Kg	08/31/1994	adl	8240 (1)
Chloroform	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Chloromethane	<12,000		mg/Kg	08/31/1994	adl	8240 (1)
Dibromochloromethane	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
1,2-Dichlorobenzene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
1,3-Dichlorobenzene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
1,4-Dichlorobenzene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
1,1-Dichloroethane	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
1,2-Dichloroethane	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
1,1-Dichloroethene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
trans-1,2-Dichloroethene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
cis-1,2-Dichloroethene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
1,2-Dichloropropane	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
cis-1,3-Dichloropropene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
trans-1,3-Dichloropropene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Ethyl benzene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Methylene chloride	<6,000		mg/Kg	08/31/1994	adl	8240 (1)

VOAs (8240) were analyzed at a 1,200,000x dilution.





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## ANALYTICAL REPORT

Mr. Herb Langer  
ECOLOGY & ENVIRONMENT, INC  
12251 Universal  
Taylor, MI 48180

09/02/1994

Sample No. : 274948

NET Job No.: 94.06756

Sample Description: D-2 Dielectric; Grab  
T05-9408

Date Taken: 08/29/1994  
Time Taken: 11:10

Date Received: 08/29/1994  
Time Received: 17:45

Analyte	Result	Flag	Units	Date Analyzed	Analyst Initials	Analytical Method
1,1,2,2-Tetrachloroethane	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Tetrachloroethene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Toluene	426,000		mg/Kg	08/31/1994	adl	8240 (1)
1,1,1-Trichloroethane	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
1,1,2-Trichloroethane	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Trichloroethene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Trichlorofluoromethane	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Vinyl chloride	<12,000		mg/Kg	08/31/1994	adl	8240 (1)
Xylenes, Total	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Surr: 1,2-Dichloroethane-d4	101	(70-121)	%	08/31/1994	adl	8240 (1)
Surr: Toluene-d8	97	(81-117)	%	08/31/1994	adl	8240 (1)
Surr: Bromofluorobenzene	101	(74-121)	%	08/31/1994	adl	8240 (1)

VOAs (8240) were analyzed at a 1,200,000x dilution.





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## ANALYTICAL REPORT

Mr. Herb Langer  
ECOLOGY & ENVIRONMENT, INC  
12251 Universal  
Taylor, MI 48180

09/02/1994

Sample No. : 274949

NET Job No.: 94.06756

Sample Description: D-3 Polymer; Grab  
T05-9408

Date Taken: 08/29/1994  
Time Taken: 11:13

Date Received: 08/29/1994  
Time Received: 17:45

Analyte	Result	Flag	Units	Date Analyzed	Analyst Initials	Analytical Method
Flashpoint	72		Degree F	09/01/1994	knj	1010 (1)
ALCOHOL COMPOUNDS NON-AQUEOUS						
Methanol	2,350		ug/g	08/31/1994	mjs	8015 (1)
PREP, BN Nonaqueous	COMPLETE			08/30/1994	mjs	3500 (1)
PREP, Acid Ext. Nonaqueous	COMPLETE			08/30/1994	mjs	3500 (1)
ACID CMPDS - 8270 NONAQUEOUS						
4-Chloro-3-methylphenol	<100		mg/Kg	08/31/1994	rla	8270 (1)
2-Chlorophenol	<100		mg/Kg	08/31/1994	rla	8270 (1)
2,4-Dichlorophenol	<100		mg/Kg	08/31/1994	rla	8270 (1)
2,4-Dimethylphenol	<100		mg/Kg	08/31/1994	rla	8270 (1)
2,4-Dinitrophenol	<500		mg/Kg	08/31/1994	rla	8270 (1)
2-Methyl-4,6-dinitrophenol	<500		mg/Kg	08/31/1994	rla	8270 (1)
2-Nitrophenol	<100		mg/Kg	08/31/1994	rla	8270 (1)
4-Nitrophenol	<500		mg/Kg	08/31/1994	rla	8270 (1)
Pentachlorophenol	<500		mg/Kg	08/31/1994	rla	8270 (1)
Phenol	<100		mg/Kg	08/31/1994	rla	8270 (1)
2,4,6-Trichlorophenol	<100		mg/Kg	08/31/1994	rla	8270 (1)

BNAs (8270) were analyzed at a 300x dilution.





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## ANALYTICAL REPORT

Mr. Herb Langer  
ECOLOGY & ENVIRONMENT, INC  
12251 Universal  
Taylor, MI 48180

09/02/1994

Sample No. : 274949

NET Job No.: 94.06756

Sample Description: D-3 Polymer; Grab  
T05-9408

Date Taken: 08/29/1994  
Time Taken: 11:13

Date Received: 08/29/1994  
Time Received: 17:45

Analyte	Result	Flag	Units	Date Analyzed	Analyst Initials	Analytical Method
BASE/NEUTRALS-8270 NONAQUEOUS						
Acenaphthene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Acenaphthylene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Anthracene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Benzidine	<500		mg/Kg	08/31/1994	rla	8270 (1)
Benzo(a)anthracene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Benzo(b)fluoranthene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Benzo(k)fluoranthene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Benzo(g,h,i)perylene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Benzo(a)pyrene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Benzyl butyl phthalate	<100		mg/Kg	08/31/1994	rla	8270 (1)
Bis(2-chloroethoxy)methane	<100		mg/Kg	08/31/1994	rla	8270 (1)
Bis(2-chloroethyl)ether	<100		mg/Kg	08/31/1994	rla	8270 (1)
Bis(2-chloroisopropyl)ether	<100		mg/Kg	08/31/1994	rla	8270 (1)
Bis(2-ethylhexyl)phthalate	<100		mg/Kg	08/31/1994	rla	8270 (1)
4-Bromophenyl phenyl ether	<100		mg/Kg	08/31/1994	rla	8270 (1)
2-Chloronaphthalene	<100		mg/Kg	08/31/1994	rla	8270 (1)
4-Chlorophenyl phenyl ether	<100		mg/Kg	08/31/1994	rla	8270 (1)
Chrysene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Dibenzo(a,h)anthracene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Di-n-butyl phthalate	<100		mg/Kg	08/31/1994	rla	8270 (1)
1,2-Dichlorobenzene	<100		mg/Kg	08/31/1994	rla	8270 (1)
1,3-Dichlorobenzene	<100		mg/Kg	08/31/1994	rla	8270 (1)
1,4-Dichlorobenzene	<100		mg/Kg	08/31/1994	rla	8270 (1)
3,3'-Dichlorobenzidine	<200		mg/Kg	08/31/1994	rla	8270 (1)
Diethyl phthalate	<100		mg/Kg	08/31/1994	rla	8270 (1)
Dimethyl phthalate	<100		mg/Kg	08/31/1994	rla	8270 (1)

BNAs (8270) were analyzed at a 300x dilution.





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## ANALYTICAL REPORT

Mr. Herb Langer  
ECOLOGY & ENVIRONMENT, INC  
12251 Universal  
Taylor, MI 48180

09/02/1994

Sample No. : 274949

NET Job No.: 94.06756

Sample Description: D-3 Polymer; Grab  
T05-9408

Date Taken: 08/29/1994  
Time Taken: 11:13

Date Received: 08/29/1994  
Time Received: 17:45

Analyte	Result	Flag	Units	Date Analyzed	Analyst Initials	Analytical Method
2,4-Dinitrotoluene	<100		mg/Kg	08/31/1994	rla	8270 (1)
2,6-Dinitrotoluene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Di-n-octyl phthalate	<100		mg/Kg	08/31/1994	rla	8270 (1)
Fluoranthene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Fluorene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Hexachlorobenzene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Hexachlorobutadiene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Hexachlorocyclopentadiene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Hexachloroethane	<100		mg/Kg	08/31/1994	rla	8270 (1)
Indeno(1,2,3-cd)pyrene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Isophorone	<100		mg/Kg	08/31/1994	rla	8270 (1)
Naphthalene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Nitrobenzene	<100		mg/Kg	08/31/1994	rla	8270 (1)
N-Nitrosodimethylamine	<100		mg/Kg	08/31/1994	rla	8270 (1)
N-Nitrosodi-n-propylamine	<100		mg/Kg	08/31/1994	rla	8270 (1)
N-Nitrosodiphenylamine	<100		mg/Kg	08/31/1994	rla	8270 (1)
Phenanthrene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Pyrene	<100		mg/Kg	08/31/1994	rla	8270 (1)
1,2,4-Trichlorobenzene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Surr: Phenol-d6	Diluted out		%	08/31/1994	rla	8270 (1)
Surr: 2-Fluorophenol	Diluted out		%	08/31/1994	rla	8270 (1)
Surr: Nitrobenzene-d5	Diluted out		%	08/31/1994	rla	8270 (1)
Surr: 2-Fluorobiphenyl	Diluted out		%	08/31/1994	rla	8270 (1)
Surr: Terphenyl-d14	Diluted out		%	08/31/1994	rla	8270 (1)
Surr: 2,4,6-Tribromophenol	Diluted out		%	08/31/1994	rla	8270 (1)

BNAs (8270) were analyzed at a 300x dilution.





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## ANALYTICAL REPORT

Mr. Herb Langer  
ECOLOGY & ENVIRONMENT, INC  
12251 Universal  
Taylor, MI 48180

09/02/1994

Sample No. : 274949

NET Job No.: 94.06756

Sample Description: D-3 Polymer; Grab  
T05-9408

Date Taken: 08/29/1994  
Time Taken: 11:13

Date Received: 08/29/1994  
Time Received: 17:45

Analyte	Result	Flag	Units	Date Analyzed	Analyst Initials	Analytical Method
VOLATILES - 8240 NONAQUEOUS						
Acrolein	<120,000		mg/Kg	08/31/1994	adl	8240 (1)
Acrylonitrile	<120,000		mg/Kg	08/31/1994	adl	8240 (1)
Benzene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Bromodichloromethane	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Bromoform	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Bromomethane	<12,000		mg/Kg	08/31/1994	adl	8240 (1)
Carbon tetrachloride	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Chlorobenzene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Chloroethane	<12,000		mg/Kg	08/31/1994	adl	8240 (1)
2-Chloroethylvinyl ether	<12,000		mg/Kg	08/31/1994	adl	8240 (1)
Chloroform	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Chloromethane	<12,000		mg/Kg	08/31/1994	adl	8240 (1)
Dibromochloromethane	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
1,2-Dichlorobenzene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
1,3-Dichlorobenzene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
1,4-Dichlorobenzene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
1,1-Dichloroethane	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
1,2-Dichloroethane	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
1,1-Dichloroethene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
trans-1,2-Dichloroethene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
cis-1,2-Dichloroethene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
1,2-Dichloropropane	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
cis-1,3-Dichloropropene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
trans-1,3-Dichloropropene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Ethyl benzene	10,800		mg/Kg	08/31/1994	adl	8240 (1)
Methylene chloride	<6,000		mg/Kg	08/31/1994	adl	8240 (1)

VOAs (8240) were analyzed at a 1,200,000x dilution.





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## ANALYTICAL REPORT

Mr. Herb Langer  
ECOLOGY & ENVIRONMENT, INC  
12251 Universal  
Taylor, MI 48180

09/02/1994

Sample No. : 274949

NET Job No.: 94.06756

Sample Description: D-3 Polymer; Grab  
T05-9408

Date Taken: 08/29/1994  
Time Taken: 11:13

Date Received: 08/29/1994  
Time Received: 17:45

Analyte	Result	Flag	Units	Date Analyzed	Analyst Initials	Analytical Method
1,1,2,2-Tetrachloroethane	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Tetrachloroethene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Toluene	577,000		mg/Kg	08/31/1994	adl	8240 (1)
1,1,1-Trichloroethane	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
1,1,2-Trichloroethane	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Trichloroethene	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Trichlorofluoromethane	<6,000		mg/Kg	08/31/1994	adl	8240 (1)
Vinyl chloride	<12,000		mg/Kg	08/31/1994	adl	8240 (1)
Xylenes, Total	45,800		mg/Kg	08/31/1994	adl	8240 (1)
Surr: 1,2-Dichloroethane-d4	101	(70-121)	%	08/31/1994	adl	8240 (1)
Surr: Toluene-d8	97	(81-117)	%	08/31/1994	adl	8240 (1)
Surr: Bromofluorobenzene	101	(74-121)	%	08/31/1994	adl	8240 (1)

VOAs (8240) were analyzed at a 1,200,000x dilution.





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## ANALYTICAL REPORT

Mr. Herb Langer  
ECOLOGY & ENVIRONMENT, INC  
12251 Universal  
Taylor, MI 48180

09/02/1994

Sample No. : 274950

NET Job No.: 94.06756

Sample Description: D-4 TCE; Grab  
T05-9408

Date Taken: 08/29/1994  
Time Taken: 11:32

Date Received: 08/29/1994  
Time Received: 17:45

Analyte	Result	Flag	Units	Date Analyzed	Analyst Initials	Analytical Method
Flashpoint	81		Degree F	09/01/1994	knj	1010 (1)
ALCOHOL COMPOUNDS NON-AQUEOUS						
Methanol	143		ug/g	08/31/1994	mjs	8015 (1)
PREP, BN Nonaqueous	COMPLETE			08/30/1994	mjs	3500 (1)
PREP, Acid Ext. Nonaqueous	COMPLETE			08/30/1994	mjs	3500 (1)
ACID COMPOUNDS - 8270 NONAQUEOUS						
4-Chloro-3-methylphenol	<100		mg/Kg	08/31/1994	rla	8270 (1)
2-Chlorophenol	<100		mg/Kg	08/31/1994	rla	8270 (1)
2,4-Dichlorophenol	<100		mg/Kg	08/31/1994	rla	8270 (1)
2,4-Dimethylphenol	<100		mg/Kg	08/31/1994	rla	8270 (1)
2,4-Dinitrophenol	<500		mg/Kg	08/31/1994	rla	8270 (1)
2-Methyl-4,6-dinitrophenol	<500		mg/Kg	08/31/1994	rla	8270 (1)
2-Nitrophenol	<100		mg/Kg	08/31/1994	rla	8270 (1)
4-Nitrophenol	<500		mg/Kg	08/31/1994	rla	8270 (1)
Pentachlorophenol	<500		mg/Kg	08/31/1994	rla	8270 (1)
Phenol	<100		mg/Kg	08/31/1994	rla	8270 (1)
2,4,6-Trichlorophenol	<100		mg/Kg	08/31/1994	rla	8270 (1)

BNAs (8270) were analyzed at a 300x dilution.





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## ANALYTICAL REPORT

Mr. Herb Langer  
ECOLOGY & ENVIRONMENT, INC  
12251 Universal  
Taylor, MI 48180

09/02/1994

Sample No. : 274950

NET Job No.: 94.06756

Sample Description: D-4 TCE; Grab  
T05-9408

Date Taken: 08/29/1994  
Time Taken: 11:32

Date Received: 08/29/1994  
Time Received: 17:45

Analyte	Result	Flag	Units	Date Analyzed	Analyst Initials	Analytical Method
BASE/NEUTRALS-8270 NONAQUEOUS						
Acenaphthene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Acenaphthylene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Anthracene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Benzidine	<500		mg/Kg	08/31/1994	rla	8270 (1)
Benzo(a)anthracene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Benzo(b)fluoranthene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Benzo(k)fluoranthene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Benzo(g,h,i)perylene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Benzo(a)pyrene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Benzyl butyl phthalate	<100		mg/Kg	08/31/1994	rla	8270 (1)
Bis(2-chloroethoxy)methane	<100		mg/Kg	08/31/1994	rla	8270 (1)
Bis(2-chloroethyl)ether	<100		mg/Kg	08/31/1994	rla	8270 (1)
Bis(2-chloroisopropyl)ether	<100		mg/Kg	08/31/1994	rla	8270 (1)
Bis(2-ethylhexyl)phthalate	1,000		mg/Kg	08/31/1994	rla	8270 (1)
4-Bromophenyl phenyl ether	<100		mg/Kg	08/31/1994	rla	8270 (1)
2-Chloronaphthalene	<100		mg/Kg	08/31/1994	rla	8270 (1)
4-Chlorophenyl phenyl ether	<100		mg/Kg	08/31/1994	rla	8270 (1)
Chrysene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Dibenzo(a,h)anthracene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Di-n-butyl phthalate	<100		mg/Kg	08/31/1994	rla	8270 (1)
1,2-Dichlorobenzene	<100		mg/Kg	08/31/1994	rla	8270 (1)
1,3-Dichlorobenzene	<100		mg/Kg	08/31/1994	rla	8270 (1)
1,4-Dichlorobenzene	<100		mg/Kg	08/31/1994	rla	8270 (1)
3,3'-Dichlorobenzidine	<200		mg/Kg	08/31/1994	rla	8270 (1)
Diethyl phthalate	<100		mg/Kg	08/31/1994	rla	8270 (1)
Dimethyl phthalate	<100		mg/Kg	08/31/1994	rla	8270 (1)

BNAs (8270) were analyzed at a 300x dilution.





NATIONAL  
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TESTING, INC.

Bartlett Division  
550 W. Bartlett Rd  
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## ANALYTICAL REPORT

Mr. Herb Langer  
ECOLOGY & ENVIRONMENT, INC  
12251 Universal  
Taylor, MI 48180

09/02/1994

Sample No. : 274950

NET Job No.: 94.06756

Sample Description: D-4 TCE; Grab  
T05-9408

Date Taken: 08/29/1994  
Time Taken: 11:32

Date Received: 08/29/1994  
Time Received: 17:45

Analyte	Result	Flag	Units	Date Analyzed	Analyst Initials	Analytical Method
2,4-Dinitrotoluene	<100		mg/Kg	08/31/1994	rla	8270 (1)
2,6-Dinitrotoluene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Di-n-octyl phthalate	<100		mg/Kg	08/31/1994	rla	8270 (1)
Fluoranthene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Fluorene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Hexachlorobenzene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Hexachlorobutadiene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Hexachlorocyclopentadiene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Hexachloroethane	<100		mg/Kg	08/31/1994	rla	8270 (1)
Indeno(1,2,3-cd)pyrene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Isophorone	<100		mg/Kg	08/31/1994	rla	8270 (1)
Naphthalene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Nitrobenzene	<100		mg/Kg	08/31/1994	rla	8270 (1)
N-Nitrosodimethylamine	<100		mg/Kg	08/31/1994	rla	8270 (1)
N-Nitrosodi-n-propylamine	<100		mg/Kg	08/31/1994	rla	8270 (1)
N-Nitrosodiphenylamine	<100		mg/Kg	08/31/1994	rla	8270 (1)
Phenanthrene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Pyrene	<100		mg/Kg	08/31/1994	rla	8270 (1)
1,2,4-Trichlorobenzene	<100		mg/Kg	08/31/1994	rla	8270 (1)
Surr: Phenol-d6	Diluted out		%	08/31/1994	rla	8270 (1)
Surr: 2-Fluorophenol	Diluted out		%	08/31/1994	rla	8270 (1)
Surr: Nitrobenzene-d5	Diluted out		%	08/31/1994	rla	8270 (1)
Surr: 2-Fluorobiphenyl	Diluted out		%	08/31/1994	rla	8270 (1)
Surr: Terphenyl-d14	Diluted out		%	08/31/1994	rla	8270 (1)
Surr: 2,4,6-Tribromophenol	Diluted out		%	08/31/1994	rla	8270 (1)

BNAs (8270) were analyzed at a 300x dilution.





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## ANALYTICAL REPORT

Mr. Herb Langer  
ECOLOGY & ENVIRONMENT, INC  
12251 Universal  
Taylor, MI 48180

09/02/1994

Sample No. : 274950

NET Job No.: 94.06756

Sample Description: D-4 TCE; Grab  
T05-9408

Date Taken: 08/29/1994  
Time Taken: 11:32

Date Received: 08/29/1994  
Time Received: 17:45

Analyte	Result	Flag	Units	Date Analyzed	Analyst Initials	Analytical Method
VOLATILES - 8240 NONAQUEOUS						
Acrolein	<83,300		mg/Kg	08/31/1994	adl	8240 (1)
Acrylonitrile	<83,300		mg/Kg	08/31/1994	adl	8240 (1)
Benzene	<4,200		mg/Kg	08/31/1994	adl	8240 (1)
Bromodichloromethane	<4,200		mg/Kg	08/31/1994	adl	8240 (1)
Bromoform	<4,200		mg/Kg	08/31/1994	adl	8240 (1)
Bromomethane	<8,300		mg/Kg	08/31/1994	adl	8240 (1)
Carbon tetrachloride	<4,200		mg/Kg	08/31/1994	adl	8240 (1)
Chlorobenzene	<4,200		mg/Kg	08/31/1994	adl	8240 (1)
Chloroethane	<8,300		mg/Kg	08/31/1994	adl	8240 (1)
2-Chloroethylvinyl ether	<8,300		mg/Kg	08/31/1994	adl	8240 (1)
Chloroform	<4,200		mg/Kg	08/31/1994	adl	8240 (1)
Chloromethane	<8,300		mg/Kg	08/31/1994	adl	8240 (1)
Dibromochloromethane	<4,200		mg/Kg	08/31/1994	adl	8240 (1)
1,2-Dichlorobenzene	<4,200		mg/Kg	08/31/1994	adl	8240 (1)
1,3-Dichlorobenzene	<4,200		mg/Kg	08/31/1994	adl	8240 (1)
1,4-Dichlorobenzene	<4,200		mg/Kg	08/31/1994	adl	8240 (1)
1,1-Dichloroethane	<4,200		mg/Kg	08/31/1994	adl	8240 (1)
1,2-Dichloroethane	<4,200		mg/Kg	08/31/1994	adl	8240 (1)
1,1-Dichloroethene	<4,200		mg/Kg	08/31/1994	adl	8240 (1)
trans-1,2-Dichloroethene	<4,200		mg/Kg	08/31/1994	adl	8240 (1)
cis-1,2-Dichloroethene	<4,200		mg/Kg	08/31/1994	adl	8240 (1)
1,2-Dichloropropane	<4,200		mg/Kg	08/31/1994	adl	8240 (1)
cis-1,3-Dichloropropene	<4,200		mg/Kg	08/31/1994	adl	8240 (1)
trans-1,3-Dichloropropene	<4,200		mg/Kg	08/31/1994	adl	8240 (1)
Ethyl benzene	<4,200		mg/Kg	08/31/1994	adl	8240 (1)
Methylene chloride	<4,200		mg/Kg	08/31/1994	adl	8240 (1)

VOAs (8240) were analyzed at a 1,200,000x dilution.





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## ANALYTICAL REPORT

Mr. Herb Langer  
ECOLOGY & ENVIRONMENT, INC  
12251 Universal  
Taylor, MI 48180

09/02/1994

Sample No. : 274950

NET Job No.: 94.06756

Sample Description: D-4 TCE; Grab  
T05-9408

Date Taken: 08/29/1994  
Time Taken: 11:32

Date Received: 08/29/1994  
Time Received: 17:45

Analyte	Result	Flag	Units	Date Analyzed	Analyst Initials	Analytical Method
1,1,2,2-Tetrachloroethane	<4,200		mg/Kg	08/31/1994	adl	8240 (1)
Tetrachloroethene	<4,200		mg/Kg	08/31/1994	adl	8240 (1)
Toluene	4,679		mg/Kg	08/31/1994	adl	8240 (1)
1,1,1-Trichloroethane	<4,200		mg/Kg	08/31/1994	adl	8240 (1)
1,1,2-Trichloroethane	<4,200		mg/Kg	08/31/1994	adl	8240 (1)
Trichloroethene	257,000		mg/Kg	08/31/1994	adl	8240 (1)
Trichlorofluoromethane	<4,200		mg/Kg	08/31/1994	adl	8240 (1)
Vinyl chloride	<8,300		mg/Kg	08/31/1994	adl	8240 (1)
Xylenes, Total	<4,200		mg/Kg	08/31/1994	adl	8240 (1)
Surr: 1,2-Dichloroethane-d4	102	(70-121)	%	08/31/1994	adl	8240 (1)
Surr: Toluene-d8	97	(81-117)	%	08/31/1994	adl	8240 (1)
Surr: Bromofluorobenzene	99	(74-121)	%	08/31/1994	adl	8240 (1)

VOAs (8240) were analyzed at a 1,200,000x dilution.





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## ANALYTICAL REPORT

Mr. Herb Langer  
ECOLOGY & ENVIRONMENT, INC  
12251 Universal  
Taylor, MI 48180

09/02/1994

Sample No. : 274951

NET Job No.: 94.06756

Sample Description: D-5 Corrosive; Grab  
T05-9408

Date Taken: 08/29/1994  
Time Taken: 11:48

Date Received: 08/29/1994  
Time Received: 17:45

Analyte	Result	Flag	Units	Reporting Limit	Date Analyzed	Analyst Initials	Analytical Method
pH	11.69		units	0.10	08/29/1994	dsf	150.1(3) 9040(1)





Portions of this attachment were redacted which contain confidential contractor information.